

AMENDMENTS TO THE SPECIFICATION WITH MARKINGS TO SHOW CHANGES MADE

Remove all particulars before the title.

Before paragraph **[0001]**, add the heading --BACKGROUND OF THE INVENTION--.

Before paragraph **[0009]**, add the heading --SUMMARY OF THE INVENTION--.

Before paragraph **[0018]**, add the heading --BRIEF DESCRIPTION OF THE DRAWING--.

Before paragraph **[0023]**, add the heading --DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS--.

Amend the following paragraphs:

[0033] -- The vibration performance was determined with the aid of the measurement apparatus illustrated in Fig. 3 2. During the tests, one side of the specimens 14 was clamped in a pedestal 15, then the specimens were made to deviate laterally over a distance of $D = 11 \text{ mm}$ and then let go. The vibrations of the freely vibrating specimens as a function of time were recorded with the aid of a sensor, the amplified signal was fed to a PC measurement card and stored with a time resolution of 4400 measured values per second as a vibration diagram. The envelope of this vibration diagram was determined, and the percentage residual amplitude compared to the starting amplitude at instant zero (100%) was

in each case determined on the basis of the resulting envelope curve or damping curve 16 after 0.15 and 0.25 second.--.

[0035] -- Fig. ~~[[4]]~~ 3 illustrates the typical vibration performance of conventional spring rails. The profile of the envelope or damping curve 16 follows an exponential function. This can be explained by the fact that during the vibration of a leaf spring, a compressive stress or a tensile stress occur alternately at the leaf surface after deflection. A vibration of this type is generally described by a differential equation. The calculations of a vibration are usually based on a linear force relationship. The result of this linear force relationship is that the vibration can be described very successfully by an exponentially decreasing vibration curve. However, if, as in the case of the alloy according to the invention, there are magneto-mechanical interactions in the microstructure, the condition for the linear force relationship is no longer satisfied and a mechanical hysteresis occurs during vibration. This is stronger at high amplitudes or excursions than at low ones, since the energy loss is dependent on the surface area of the hysteresis curve. In such a situation, an exponentially decreasing damping curve is not attained. Rather, there is very strong initial damping (cf. Hornbogen, Metallkunde, 2nd edition).--.

[0036] -- ~~The~~ As shown in Fig. 4, the two damping curves 17, 18 for the spring rails formed from comparison steels C9 and C10 in Tables I and II behave similarly; these follow Hooke's law. By contrast, curve 19 for the spring rail

according to the invention formed from steel E1 in Table I or test 2 in Table II behaves differently. The profile of the curve 19, on account of its relatively steep drop, reveals high initial damping, which can be explained by a nonlinear deviation from Hooke's law, caused by the abovementioned stress-induced domain wall movements as occur within the field of values according to the invention for coercive force and magnetic saturation.--.

Page 14, after the heading "CLAIMS" and before the first claim add --What is claimed is:--.